Provisional Fire Clearance (Above 15 Mtr. Height)

Letter No ···2246·····/

OFFICE OF THE STATE FIRE OFFICER-CUM-DIRECTOR, BIHAR, PATNA.

From,

Pankaj Sinha,
State Fire Officer,
Bihar, Patna.

To,

Ar. Vishnu Kumar Choudhary
5th Floor, Sone Bhavan
R. Block, Patna-800001

Patna Dt. 26.07.2019.

Sub :- The views regarding Proposed Residential Building of above 15 mtr. In height to be constructed at, Mauza-Mainpura, Dist- Patna.

Sir,

Please refer to your letter no.- F/04/19-20, dt.-16/05/2019 through which this aforesaid plan has been sent to us for examination, which was examined by the Fire Service committee.

During examination of the plan it was found that a Block-A+B-(B+G+14) (Total B/U area-47899.30 Sqmtr.), Proposed Residential Building, shall be constructed on 90 feet wide road belongs to Ashiana Creators Pvt. Ltd, Director-Manas Kumar, S/o-Late K.N.Singh, Plot No.-406,408,426,427,429,431 & 433, Khata No.-231,104,134 & 35, Tauzi No.-5234, Thana No.-24, Mauza-Mainpura, Dist-Patna.

We clear the plan after giving following advice/suggestions/recommendations based on NBC guideline, local building by laws & the local circumstances which must be followed by the concerned Architect/Developer/Land owner as the case may be.

i) **Construction :**

a) The whole construction of the proposed building shall be carried out as per approved plan drawing conforming the relevant building rules of local Municipal Corporation as per Bihar building bye laws, 2014.
b) The floor area exceeds 750 m ^{2} shall be suitably compartmented by separation walls up to ceiling level having at least two hours Fire resisting capacity.
c) The interior finish decoration of the building shall be made low flame spread materials conforming I.S. specifications.
d) Provision of ventilation at the crown of the central core-duct of the building shall be provided.
e) Arrangements shall have to be made for sealing all the vertical ducts by the materials of adequate Fire resisting capacity.

ii) **Open Space & Approach :**

a) The open space surrounding the building shall conform the relevant building rules as well as permit the accessibility and maneuverability of Fire appliance with turning facility.
b) The approach roads shall be sufficiently strong to withstand the load of Fire Engine weighting up to 20 M.T.
c) The width and height of the access gates into the premises shall not be less than 4.5 M and 5M respecting abutting the road.

iii) **Stair Case :-**

a) The Staircase of the building shall be enclosed type. Entire construction shall be made of brick / R.C.C. type having Fire resisting capacity not less than 4 hours respectively marked in the plan.
b) The Staircase of the building shall have permanent vents at the top equal to 5% of the cross sectional area of the staircase enclosures and openable sashes at each floor level equal to 15% of the said cross section are shall have to be provided in the external wall of the building.
c) All the Staircase of the building shall be negotiable to each other in each floor without entering into any room and shall be extended up to respective terrace. The roof of the Stair wall shall be 1M above the surrounding roof area.
d) The width of the Staircases and corridor and travel distance of different categories of occupancies shall have to confirm the relevant building rules.
e) In case of two staircase, one must be on outer wall.
f) Both staircase are not went down to basement floor, for approach to basement, there should be another staircase for approach.

iv) LIFT :-

a) The walls of the Lift enclosure of the building shall be at least two hours Fire resisting type respectively marked in the plan with the event at top of area not less than 0.2 m ².

b) The lift of the building shall be designed at high speed "Fire Lift" and conspicuously indicated marked in the plan.

c) In case of failure of normal electric supply, it shall automatically trip over to alternate supply. For apartment houses these change over of supply could be done through manually operated change over switch. Alternatively, the lift shall be so wired that in case of power failure, it comes down at the ground level land comes to stand still with door open.

d) Arrangement shall be provided for extraction of smoke in all the lift shaft by incorporation smoke venting system designed to permit 30 Air changes per hour in case of Fire and shall be of such design as to operate on actuation of sprinkler or Fire Alarm. In case of failure of normal electric supply. It shall automatically trip to alternate supply.

e) All other requirements shall conform the I.S. specification including the communication facility in the lift cars connecting with the Fire Control Room of the building.

v) That active Fire protection system such as down comer system with landing valve and hose reel at each floor incorporated with 450 LPM pump at Terrace level, ISI marked Fire extinguishers as per I.S 2190/1992, F.R. check door, manual call alarm point, Fire safety luminescent sign & other Fire precautionary measures as mentioned in NBC be provided before occupancy.

vi) That an underground water static tank of not less than 50,000 Ltrs. capacity with automatic refilling arrangements prefebly on front side where Fire Brigade vehicles can reach easily & overhead water static tank of not less than 10,000 Ltrs. capacity each blocks should be made available before occupancy.

vii) That the internal finishing shall be non-combustible or class - I surface spread of flame.

viii) That electric cables must be shield at each floor with intumescent coating .

ix) That Fire exit drill be carried out regularly at least twice in a year after occupation.

x) That the building must be constructed on at least 20 feet wide road and it is responsibility of the concerned Architect to be ensure the road width because he is the passing authority.

xi) That AMC should be given to a qualified firm or person for the maintenance of above recommended Fire equipments.

xii) That the setback shall be checked by the Architect / Passing authority as per the established rule. If any thing wrong , the Architect / Passing authority shall be held responsible.

xiii) It is hereby made clear that in case of any legal dispute arising in future, in which above recommendations have not been complied, the responsibility will fall entirely upon the Developers/ Architect/ Landowner as the case may be and not on the recommending Govt. authority (i.e. the office of the State Fire Office, Bihar).

xiv) It is hereby made also clear that this office (i.e. the office of the State Fire Officer-cum-Director, Bihar, Patna) is not responsible for any legal dispute of the land upon which the proposed building shall be constructed.

xv) Set backs on all the sides adheres to the provisions for the fire safety as per bye laws. Whereas immediately beneath this area in the basement is adhering to the bye laws will be examined by the concerned Urban local bodies.

This shall be treated as provisional. On compliance of all the above Fire and Life Safety recommendations, this office shall be approached for necessary inspection and testing of the installation, Final approval in favour of the occupancy shall be issued on being satisfied with the tests and performances of safety aspects of installation of the building.

N.B. - Any deviation and changes the nature of use of the building in respect of the approved plan drawing without obtaining prior permission from this office, this provisional will be treated as cancelled.

The maps are being returned with sign and stamp .

Encl - As Above

Yours faithfully,

DIG HG & FS

(Pankaj Sinha) Cum State Fire Officer

Bihar, Patna

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Dig HG & FS
Cum
State Fire Officer
Bihar, Patna

(615/19)

भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

ASHIANA CREATORS PVT LTD

Rajendra Singh Basudev Singh Kamla Prasad Singh M/s Ashiana Creators Pvt Ltd of Dir Manas Kumar At 405 & 406 Verma Centre Boring Road Crossing Patna

Date: 08-07-2019

Valid Upto: 07-07-2027

No Objection Certificate for Height Clearance

1. This NOC is issued by Airports Authority of India (AAI) in pursuance of responsibility conferred by and as per the provisions of Govt. of India (Ministry of Civil Aviation) order GSR751 (E) dated 30th Sep. 2015 for Safe and Regular Aircraft Operations.

2. This office has no objection to the construction of the proposed structure as per the following details:

NOC ID :	**PATN/EAST/B/062519/408710**
Applicant Name*	**Vinay Kumar**
Site Address*	**Plot No 408 429 431 433 426 427 406 Khata No 104 134 232 35 Thana No 24 Tauzi No 5234 Mauza Mainpur Shankar Danapur Patna,Mainpur Shankar Danapur Patna,Patna,Bihar**
Site Coordinates*	**85 02 05.55-25 37 11.97, 85 02 05.69-25 37 12.61, 85 02 06.69-25 37 12.41, 85 02 06.93-25 37 13.33, 85 02 07.11-25 37 11.51, 85 02 07.29-25 37 12.21, 85 02 07.54-25 37 13.11, 85 02 10.03-25 37 10.16, 85 02 10.11-25 37 11.53, 85 02 10.57-25 37 11.39, 85 02 11.14-25 37 15.51, 85 02 11.77-25 37 10.93, 85 02 11.88-25 37 12.80, 85 02 12.38-25 37 12.64, 85 02 12.65-25 37 14.96**
Site Elevation in mtrs AMSL as submitted by Applicant*	**52 M**
Permissible Top Elevation in mtrs Above Mean Sea Level(AMSL)	**108M**

*As provided by applicant

3. This NOC is subject to the terms and conditions as given below:

a. Permissible Top elevation has been issued on the basis of Site coordinates and Site Elevation submitted by Applicant. AAI neither owns the responsibility nor authenticates the correctness of the site coordinates & site elevation provided by the applicant. If at any stage it is established that the actual data is different, this NOC will stand null and void and action will be taken as per law. The office in-charge of the concerned aerodrome may initiate action under the Aircraft (Demolition of Obstruction caused by Buildings and Trees etc.) Rules, 1994"

b. The Site coordinates as provided by the applicant in the NOC application has been plotted on the street view map and satellite map as shown in ANNEXURE. Applicant/Owner to ensure that the plotted coordinates corresponds to his/her site.In case of any discrepancy,Designated Officer shall be requested for cancellation of the NOC.

c. Airport operator or his designated representative may visit the site (with prior coordination with applicant or owner) to ensure that NOC terms & conditions are complied with.

d. The Structure height (including any superstructure) shall be calculated by subtracting the Site elevation in AMSL from the Permissible Top Elevation in AMSL i.e. Maximum Structure Height = Permissible Top Elevation minus (-) Site Elevation.

e. The issue of the 'NOC' is further subject to the provisions of Section 9-A of the Indian Aircraft Act, 1934 and any notifications issued there under from time to time including the Aircraft (Demolition of Obstruction caused by Buildings and Trees etc.) Rules,1994.

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AIRPORTS AUTHORITY OF INDIA

f. No radio/TV Antenna, lighting arresters, staircase, Mumtee, Overhead water tank and attachments of fixtures of any kind shall project above the Permissible Top Elevation of 108M (AMSL), as indicated in para 2.

g. Use of oil, electric or any other fuel which does not create smoke hazard for flight operations is obligatory, within 8 KM of the Aerodrome Reference Point.

h. The certificate is valid for a period of 8 years from the date of its issue.One time revalidation without assessment may be allowed, provided construction work has commenced,subject to the condition that such request shall be made within the validity period of the NOC and the delay is due to circumstances which are beyond the control of the developer.

i. No light or a combination of lights which by reason of its intensity, configuration or colour may cause confusion with the aeronautical ground lights of the Airport shall be installed at the site at any time, during or after the construction of the building. No activity shall be allowed which may affect the safe operations of flights

j. The applicant will not complain/claim compensation against aircraft noise, vibrations, damages etc. caused by aircraft operations at or in the vicinity of the airport.

k. Day markings & night lighting with secondary power supply shall be provided as per the guidelines specified in chapter 6 and appendix 6 of Civil Aviation Requirement Series B Part I Section 4, available on DGCA India website: www.dgca.nic.in

l. The applicant is responsible to obtain all other statutory clearances from the concerned authorities including the approval of building plans. This NOC for height clearances is to ensure the safe and regular aircraft operations and shall not be used as document for any other purpose/claim whatsoever, including ownership of land etc.

m. This NOCID has been assessed w.r.t Patna Airport(s). NOC has been issued w.r.t. the AAI aerodromes and other licensed civil aerodromes as listed in Schedule-III, Schedule-IV(Part-1), Schedule-IV(Part-2;RCS Airports Only) and Schedule-VII of GSR751(E).

n. Applicant needs to seek separate NOC from Defence, if the site lies within the jurisdiction of Defence Aerodromes as listed in Schedule-V of GSR751(E). As per Rule 13 of GSR751(E), applicants also need to seek NOC from the concerned State Govt. for sites which lies in the jurisdiction of unlicensed aerodromes as listed in Schedule-IV (Part-2:other than RCS airports) of GSR751(E) .

o. In case of any discrepancy/interpretation of NOC letter, English version shall be valid.

p. In case of any dispute w.r.t site elevation and/or AGL height, top elevation in AMSL shall prevail.

महा प्रबंधक (वायानी) पू.क्षे.
General Manager(ATM)ER
भा.वि.प्रा. / A.A.I.
ने.सु.च.बो.अ. हवाई अड्डा/N.S.C.B.I. Airport
कोलकाता/Kolkata 700052

Chairman NOC Committee

Region Name: EAST

Address: General Manager Airports Authority of India, Regional Headquarter, Eastern Region, N.S.C.B.I Airport, Kolkata-700052

Email ID: gmatmer@aai.aero

Contact No: 033-25111293

Name / Designation / Sign with Date	
Prepared By :	08.07.19
Verified By :	Choudhury. 08.07.19.

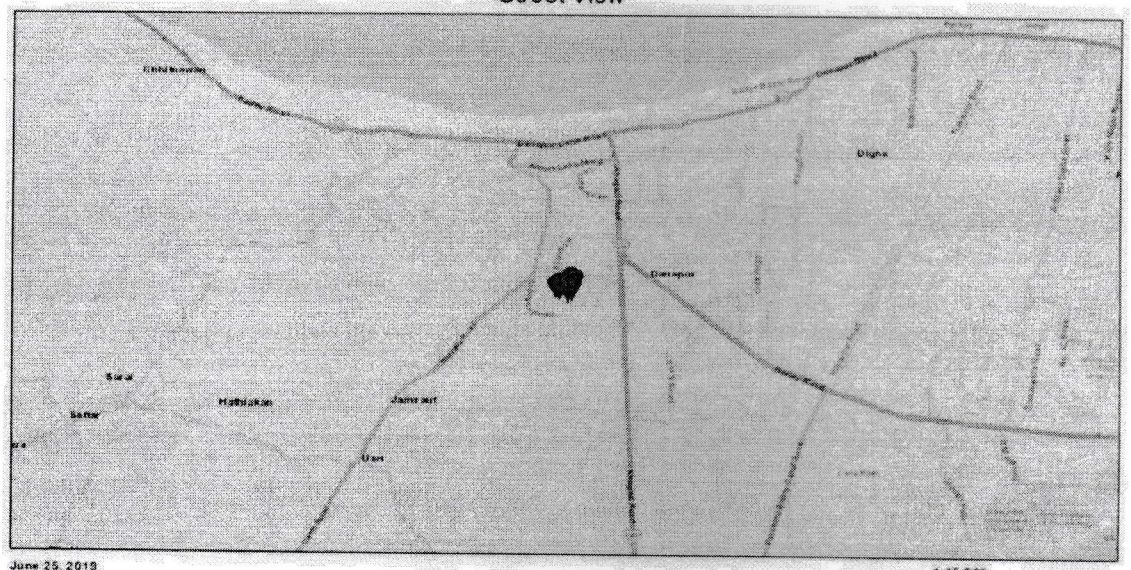
(615/17)

ANNEXURE

Distance From Nearest Airport And Bearing

Airport Name	Distance (Meters) from Nearest ARP	Bearing (Degree) from Nearest ARP
Patna	6276.71	297.92
NOCID	PATN/EAST/B/062519/408710	

Street View



June 25, 2019

Satellite View



June 25, 2019

F. No. - SIA/8(a)/695/19

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, BIHAR

2nd Floor, Beltron Bhawn
Shastri Nagar
Patna - 800 023
E-mail:- seiaabihar@gmail.com
seiaa.ms.br@gmail.com
Telephone No.:- 0612 - 2281255

Dated:- 20/02/2020

To,

Shri Manas Kumar,
Director,
M/s Ashiyana Creators Private Limited,
405, 406, Verma Center,
Boring Road Crossing,
Patna - 800 001.
Email:- ashiyanaec@gmail.com,
kmanas@hotmail.com,
Telephone No. - 0612 - 2542439.

Sub: **"Ashiyana Green City (Phase - 2)" (Proposed Residential Apartment) at Patna, Bihar, with proposed Built-up Area of 61,186.14 m^2 in the proposed plot area of 12,787.79 m^2 - Environment Clearance regarding.**

Reference:-

1. Online Application - SIA/BR/MIS/121529/2019.
2. Your application dated 13-11-2019 (hard copy submission).
3. Minutes of the SEAC meeting held on 25-11-2019.
4. Minutes of the SEIAA meeting held on 22-01-2020.

1

Member Secretary
SEIAA, Bihar

Sir,

This has reference to your online application for the above proposal of "Ashiyana Green City (Phase - 2)" (Proposed Residential Apartment) at Patna, for building construction project at District- Patna.

The details of the project provided by project proponent -

Sl. No.	Item	Details	
1.	Name of the project	"Ashiyana Green City (Phase - 2)" (Proposed Residential Apartment) at Patna, Bihar.	
2.	S. No. in the Schedule of EIA	8(a) {Building & Construction Project}	
3.	Total Plot Area of the project	12,787.79 m^2	
4.	Proposed total Built-up Area of the project	61,186.14 m^2	
5.	Parking Area of the project	Covered Parking Area - 13,583.69 m^2 Total Parking Area (Covered + Open) - 13,583.69 m^2 + 149.58 m^2 = 13,733.27 m^2	
6.	Total Green Belt / Landscape Area of the project	3,049.2 m^2	
7.	Geo-Coordinates of the project	Corner N - 25° 37' 15.67" N 85° 02' 10.96" E Corner S - 25° 37' 10.06" N 85° 02' 09.91" E Corner W - 25° 37' 12.78" N 85° 02' 05.62" E Corner E - 25° 37' 10.99" N 85° 02' 11.49" E	
8.	Location of the Project	Khata No.:- 104, 134, 35, 232, Plot No.:- 408, 429, 431, 433, Mauza - Manipur Shankar, Tehsil:- Phulwari, District:- Patna, State:- Bihar	
9.	New / Expansion / Modernization	New	
10.	Number of Blocks / floors	Proposed Built up area Block A (B+G+14) and Parking Area in Ground Floor (1)	19,445.45 m^2
		Block - B (LW+B+G+14) and Parking Area in Ground Floor (2)	23,158.38 m^2
		Block - C (G+13) and Parking Area in Ground Floor (3)	6,397.00 m^2
		Block - D (B+G+5)	1,893.56 m^2
		Parking Area in	6,566.93 m^2

Member Secretary
SEIAA, Bihar

		Lower Basement Floor (5)	
		Parking Area in Basement Floor (6)	3,724.82 m^2
		Total Covered Area (1+2+3+4+5+6)	6,1186.14 m^2
		Total Built-up Area	61,186.14 m^2
11.	Maximum height of Building	55 meter	
12.	Visitors @ 15%	398 persons	
13.	STP Capacity	STP - 500 KLD	
14.	Municipal Solid waste Generation	**Construction Phase:** Municipal Solid Waste - 50 Kg/day **Operation Phase:** Municipal Solid Waste - 1,027 Kg/day The solid waste includes paper, card board, plastic cans etc. and residential waste from kitchen. Recyclable wastes like card boards and plastic cans will be sold to vendors. (@0.15 to 0.36 kg per captita).	
15.	Total Power Requirement	8,755.12 KW.	
16.	Source of Power supply	Bihar State Electricity Board.	
17.	D.G. Set Back up	2 Nos. of DG sets. (500 KVA and 250 KVA will be installed)	
18.	Total No. of Rain water harvesting potential proposed	4,792 m^3.	
19.	Total No. of Rain water harvesting pits proposed	4 Nos.	
20.	Total Water Requirement	450 KLD (241 KLD through Borewells / Water Tanker / Municipal Water & 209 KLD STP treated water)	
21.	Estimated project Cost	Total Project Cost - ₹ 1,25,00,00,000/- (approx.) Environment Management cost - ₹ 97,00,000/- (One time Installation Cost) Environment Management cost - ₹ 22,00,000/- (Recurring Cost)	

PREMISES OF THE ENVIRONMENTAL CLEARANCE

This Environmental Clearance is being issued on the premises which have been substantiated/described in detail in the format of application along with enclosed affidavits/certificates/undertakings etc. furnished therewith by the project proponent:-

Member Secretary
SEIAA, Bihar

(i) Information provided, descriptions mentioned are complete, true and actual and no relevant fact has been concealed to obtain Environmental Clearance deceitfully by the project proponent.

(ii) Environmental Clearance shall be liable to be revoked if furnished information, provided description / Certificates / Affidavits / Undertaking etc. are found false/ concocted at any stage of its validity.

(iii) Project Proponent shall intimate SEIAA immediately if there is any change in their official address / E-mail / Ph. No / Cell. no etc failing which communication sent to them on old address shall be considered as delivered.

(iv) This Environmental Clearance is issued without affecting any court order / statutory other institutions as well as relevant other laws enactment by Ministry of Environment, Forest & Climate Change, Government of India, New Delhi.

I. Statutory compliance:

1. The project proponent shall obtain all necessary clearance / permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.

2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.

3. All directions of the Airport Authority, Director of Explosives and Fire Department etc. shall be complied with.

4. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.

5. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.

Member Secretary
SEIAA, Bihar

6. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

7. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

8. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

9. The project proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

10. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection centre & mechanical composter etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors for which a written tie-up must be done with the authorized recyclers.

11. Hazardous waste/E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.

12. Solar power plant or other solar energy related equipment's shall be operated and maintained properly.

13. Provisions shall be made for the integration of solar water heating system.

14. EC conditions must be displayed at prominent place which can be easily visible to public mentioning the address and contact number of authority to whom violation of EC conditions can be reported.

15. Fencing of the project boundary by erecting 10 meter façade before start of construction activities.

16. Free Parking facility for visitors shall be provided.

Member Secretary
SEIAA, Bihar

II. Air quality monitoring and preservation

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.

2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.

3. The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM_{10} and $PM_{2.5}$) covering upwind and downwind directions during the construction period.

4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Diesel to be used should have lower in sulphur content. The location of the DG sets may be decided with in consultation with State Pollution Control Board.

5. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust / wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.

6. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

7. Wet jet shall be provided for grinding and stone cutting.

8. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

Member Secretary
SEIAA, Bihar

4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.

5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.

8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.

9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

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9. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.

10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

11. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

12. For indoor air quality the ventilation provisions as per National Building Code of India.

13. Real time Ambient Air Quality shall be measured on continuous basis and and the data shall be displayed in public domain as per National Ambient Air Quality parameters and on the portal of hospital. The measured data shall be linked to the server of the State Pollution Control Board.

III. Water quality monitoring and preservation:

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

3. Total fresh water use shall not exceed the proposed requirement as provided in the project details.

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21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

22. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.

IV. Noise monitoring and prevention:

1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures:

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.

2. Outdoor and common area lighting shall be LED.

3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope,

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appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.

4. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.

5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.

6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management:

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.

2. Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Municipal Solid Wastes (Management and Handling) Rules, 2000 (As amended).

3. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.

4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general

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safety and health aspects of people, only in approved sites with the approval of competent authority.

5. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.

6. Organic waste compost / Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.

7. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

8. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

9. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.

10. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016, Ready mixed concrete must be used in building construction.

11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.

12. Used CFLs and TFLs should be properly collected and disposed off / sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.

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VII. Green Cover:

1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree felling shall be done with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species planted.

2. 3,049.2 m^2 of the plot area shall be kept under green belt cover within the project site.

3. All the affords shall be made not to fell any tree however if any tree need to be removed necessarily a prior permission from concerned local Authority shall be obtained. In case of felling plantations to be insured in the ratio of species cut / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.

4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VIII. Transport:

1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

    a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
    b. Traffic calming measures.
    c. Proper design of entry and exit points.
    d. Parking norms as per local regulation.

2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

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3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D. / competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human health issues:

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

2. For indoor air quality the ventilation provisions as per National Building Code of India.

3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

5. Occupational health surveillance of the workers shall be done on a regular basis.

6. A First Aid Room shall be provided in the project both during construction and operations of the project.

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X. **Corporate Environment Responsibility:**

1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.

2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.

4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA/ Ministry, Regional Office along with the Six Monthly Compliance Report.

XI. **Miscellaneous:**

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC / SEIAA website where it is displayed.

2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant

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offices of the Government who in turn has to display the same for 30 days from the date of receipt.

3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.

4. Rest room facilities shall be provided for service population.

5. Permission shall be made for food waste management facility / Bio-composting unit preferably in the campus.

6. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

7. The project proponent shall abide by all the commitments and recommendations made in the EIA / EMP report, commitment made during their presentation to the State Expert Appraisal Committee.

8. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

9. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

10. The project proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

11. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

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12. The EC granted on submitted basis of the layout plan of proposed construction of buildings/establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which EC is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction/revision in the EC accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of EC condition.

13. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA.

14. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

15. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

16. The SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

17. The Regional Office of the MoEF&CC, GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.

18. Project proponent shall erect a signboard on his project site and display information regarding name of the project, No. date and validity period of EC, and other relevant information for the general public.

19. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other

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orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

20. Environmental clearance shall remain valid for a maximum period of 7 years or completion of project whichever is earlier.

21. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

(Kamal Jeet Singh)
Member Secretary,
SEIAA, Bihar

Member Secretary
SEIAA, Bihar